

# 26

## Substance Abuse

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Co-Lead Agencies: National Institutes of Health; Substance Abuse  
and Mental Health Services Administration

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## Goal

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Reduce substance abuse to protect the health, safety, and quality of life for all, especially children.

## Overview

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Substance abuse and its related problems are among society's most pervasive health and social concerns. Each year, about 100,000 deaths in the United States are related to alcohol consumption.<sup>1</sup> Illicit drug abuse and related acquired immunodeficiency syndrome (AIDS) deaths account for at least another 12,000 deaths. In 1995, the economic cost of alcohol and drug abuse was \$276 billion.<sup>2</sup> This represents more than \$1,000 for every man, woman, and child in the United States to cover the costs of health care, motor vehicle crashes, crime, lost productivity, and other adverse outcomes of alcohol and drug abuse.

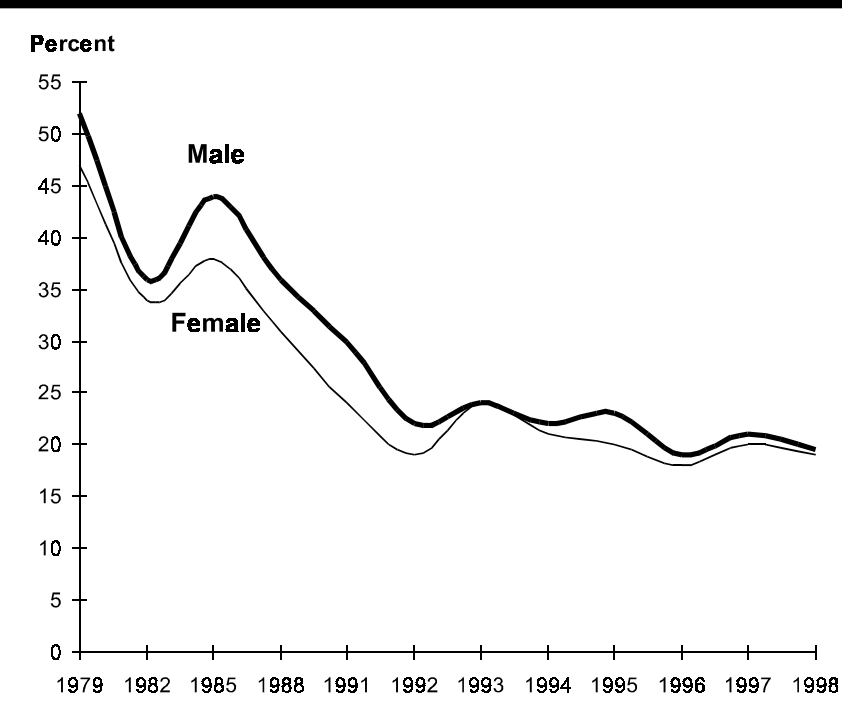
## Issues and Trends

A substantial proportion of the population drinks alcohol. Forty-four percent of adults aged 18 years and older (more than 82 million persons) report having consumed 12 or more alcoholic drinks in the past year.<sup>3</sup> Among these current drinkers, 46 percent report having been intoxicated at least once in the past year—nearly 4 percent report having been intoxicated weekly. More than 55 percent of current drinkers report having consumed five or more drinks on a single day at least once in the past year—more than 12 percent did so at least once a week. Nearly 20 percent of current drinkers report having consumed an average of more than two drinks per day. Nearly 10 percent of current drinkers (about 8 million persons) meet diagnostic criteria for alcohol dependence. An additional 7 percent (more than 5.6 million persons) meet diagnostic criteria for alcohol abuse.<sup>4</sup>

Alcohol use and alcohol-related problems also are common among adolescents.<sup>5</sup> Age at onset of drinking strongly predicts development of alcohol dependence over the course of the lifespan. About 40 percent of those who start drinking at age 14 years or under develop alcohol dependence at some point in their lives; for those who start drinking at age 21 years or older, about 10 percent develop alcohol dependence at some point in their lives.<sup>6</sup> Persons with a family history of alcoholism have a higher prevalence of lifetime dependence than those without such a history.<sup>7</sup>

Excessive drinking has consequences for virtually every part of the body. The wide range of alcohol-induced disorders is due (among other factors) to differences in the amount, duration, and patterns of alcohol consumption, as well as differences in genetic vulnerability to particular alcohol-related consequences.<sup>8</sup>

### Proportion of Adolescents Aged 12 to 17 Years Reporting Use of Alcohol in the Past Month (By gender and year, United States, 1979–98)



**Source:** National Household Survey on Drug Abuse. Preliminary data, SAMHSA, OAS, June 1998.

Light-to-moderate drinking can have beneficial effects on the heart, particularly among those at greatest risk for heart attacks, such as men over age 45 years and women after menopause.<sup>9</sup> Moderate drinking generally refers to consuming one or two drinks per day. Moderate drinking, however, cannot be achieved by simply averaging the number of drinks. For example, consuming seven drinks on a single occasion will not have the same effects as consuming one drink each day of the week.

Long-term heavy drinking increases risk for high blood pressure, heart rhythm irregularities (arrhythmias), heart muscle disorders (cardiomyopathy), and stroke. Long-term heavy drinking also increases the risk of developing certain forms of cancer, especially of the esophagus, mouth, throat, and larynx.<sup>10</sup> Heavy alcohol use also increases risk for cirrhosis and other liver disorders<sup>11</sup> and worsens the outcome for patients with hepatitis C.<sup>12</sup> Drinking also may increase the risk for developing cancer of the colon and rectum.<sup>10</sup> Women's risk of developing breast cancer increases slightly if they drink two or more drinks per day.<sup>13</sup>

Alcohol use has been linked with a substantial proportion of injuries and deaths from traffic crashes, falls, fires, and drownings.<sup>11</sup> It also is a factor in homicide, suicide, marital violence, and child abuse<sup>14</sup> and has been associated with high-risk

sexual behavior.<sup>11, 15, 16</sup> Persons who drink even relatively small amounts of alcoholic beverages may contribute to alcohol-related death and injury in occupational incidents or if they drink before operating a vehicle.<sup>11</sup> In 1996, alcohol use was associated with 41 percent of all motor vehicle crash fatalities, a significantly lower percentage than in the 1980s.<sup>17</sup>

Although there has been a long-term drop in overall use, many Americans still use illicit drugs. In 1997, there were 13.9 million current users of any illicit drug in the total household population aged 12 years and older, representing 6.4 percent of the total population.<sup>18</sup> Marijuana is the most commonly used illicit drug, and 60 percent of users abuse marijuana only.<sup>18</sup> Thirty-six percent of persons aged 12 years and older have used an illegal drug in their lifetime. Of these, more than 90 percent used marijuana or hashish, and approximately 30 percent tried cocaine.<sup>18</sup> Relatively rare in 1996, methamphetamine use began spreading in 1997.<sup>18, 19</sup>

Estimated rates of chronic drug use also are significant. Of the estimated 4.4 million chronic drug users in the United States in 1995, 3.6 million were chronic cocaine users (primarily crack cocaine), and 810,000 were chronic heroin users.<sup>20</sup>

Drug dependence is a chronic, relapsing disorder. Addicted persons frequently engage in self-destructive and criminal behavior. Research has confirmed that treatment can help end dependence on addictive drugs and reduce the consequences of addictive drug use on society. While no single approach for substance abuse and addiction treatment exists, comprehensive and carefully tailored treatment works.<sup>21</sup>

Drug use among adolescents aged 12 to 17 years doubled between 1992 and 1997, from 5.3 percent to 11.4 percent.<sup>18</sup> Youth marijuana use has been associated with a number of dangerous behaviors. Nearly 1 million youth aged 16 to 18 years (11 percent of the total) have reported driving in the past year at least once within 2 hours of using an illegal drug (most often marijuana).<sup>22</sup> Adolescents aged 12 to 17 years who smoke marijuana were more than twice as likely to cut class, steal, attack persons, and destroy property than those who did not smoke marijuana.<sup>23</sup> Drug and alcohol use by youth also is associated with other forms of unhealthy and unproductive behavior, including delinquency and high-risk sexual activity.

Illegal use of drugs, such as heroin, marijuana, cocaine, and methamphetamine is associated with other serious consequences, including injury, illness, disability, and death as well as crime, domestic violence, and lost workplace productivity. Drug users and persons with whom they have sexual contact run high risks of contracting gonorrhea, syphilis, hepatitis, tuberculosis, and human immunodeficiency virus (HIV). The relationship between injection drug use and HIV/AIDS transmission is well-known. Injection drug use also is associated with hepatitis B and C infections.<sup>24</sup> The use of cocaine, nitrates, and other substances can produce cardiac irregularities and heart failure, convulsions, and seizures. Cocaine use temporarily narrows blood vessels in the brain, contributing to the risk of strokes (bleeding within the brain) and cognitive and memory deficits.<sup>25</sup> Long-term consequences,

such as chronic depression, sexual dysfunction, and psychosis, may result from drug use.

Substance abuse, including tobacco use and nicotine dependence, is associated with a variety of other serious health and social problems. An analysis of the epidemiological evidence reveals that 72 conditions requiring hospitalization are wholly or partially attributable to substance abuse.<sup>26</sup>

Substance abuse contributes to cancers that, until recently, were thought to be unrelated. Advances in research techniques since the 1980s, including advanced brain imaging and the study of the effects of alcohol and drug abuse on individual cells, have helped to document the alteration of healthy systems by all forms of substance abuse, including marijuana use. Researchers have identified lasting brain and nervous system damage from drugs, including changes in nerve cell structure associated with alcohol and drug dependence. Other research has focused on the long-term effects of alcohol and drug abuse on the immune system as well as the effects of prenatal alcohol and drug exposure on the behavior and development of children.

Research confirms that a substantial number of frequent users of cocaine, heroin, and illicit drugs other than marijuana have co-occurring chronic mental health disorders. Some of these persons can be identified by their behavior problems at the time of their entry into elementary school.<sup>27</sup> Such youth tend to use substances at a young age and exhibit sensation-seeking (or “novelty-seeking”) behaviors. These youth benefit from more intensive preventive interventions, including family therapy and parent training programs.<sup>28, 29</sup>

The stigma attached to substance abuse increases the severity of the problem. The hiding of substance abuse, for example, can prevent persons from seeking and continuing treatment and from having a productive attitude toward treatment. Compounding the problem is the gap between the number of available treatment slots and the number of persons seeking treatment for illicit drug use or problem alcohol use.

## **Disparities**

Substance abuse affects all racial, cultural, and economic groups. Alcohol is the most commonly used substance, regardless of race or ethnicity, and there are far more persons who smoke cigarettes than persons who use illicit drugs. Usage rates for an array of substances reveal that, for adolescents aged 12 to 17 years:

- Whites and Hispanics are more likely than African Americans to use alcohol.
- Whites are more likely than African Americans and Hispanics to use tobacco.
- Whites are more likely than African Americans and Hispanics to use illicit drugs.

Additional findings include the following:

Substance Use in the Past Year, 1997						
Substance	White		Hispanic		African American	
	All Ages	Aged 12 to 17 Years	All Ages	Aged 12 to 17 Years	All Ages	Aged 12 to 17 Years
	Percent					
Alcohol	67.8	36.0	55.6	32.5	52.7	27.3
Cigarette	33.7	29.1	30.4	20.8	32.5	18.2
Any illicit drug	11.3	19.6	9.9	16.5	12.1	15.7
Marijuana	9.1	16.3	7.5	13.8	9.9	13.4
Cocaine	1.9	2.5	2.0	2.3	2.4	0.2
Inhalants	1.2	5.2	1.1	3.7	0.4	1.0
Heroin	0.2	*	0.6	*	0.5	*

\*Not available

Source: National Household Survey on Drug Abuse: Population Estimates 1997, SAMHSA

Older adolescents and adults with co-occurring substance abuse and mental health disorders need explicit and appropriate treatment for their disorders. Those who suffer from co-occurring disorders, however, are frequently turned away from treatment designed for one or the other problem but not for both. (See Focus Area 18. Mental Health and Mental Disorders).

The population aged 65 years and older faces risks for alcohol-related problems, although this group consumes comparatively low amounts of alcoholic beverages.<sup>30</sup> Adverse alcohol-drug interaction can put older people in the hospital, since many take multiple medications. In addition, many cases of memory deficits and dementia now are understood to result from alcoholism.<sup>31</sup>

## Opportunities

The direct application of prevention and treatment research knowledge is particularly important in solving substance abuse problems. Developing adaptations of research-proven programs for diverse racial and ethnic populations, field testing them with high-quality process and outcome evaluations, and providing them where they are most needed are critical. Interventions appropriate to the population to be served, including interventions to address gaps in substance abuse treatment capacity, must be identified and implemented by Federal, Tribal, regional, State, and community-based providers in a variety of settings.

Scientific research has identified many opportunities to prevent alcohol-related problems. For example, studies indicate that school-based programs focused on

altering perceived peer-group norms about alcohol use<sup>32, 33</sup> and developing skills in resisting peer pressures to drink<sup>34, 35, 36</sup> reduce alcohol use among participating students. Communitywide programs involving school curricula, peer leadership, parental involvement and education, and community task forces also have reduced alcohol use among adolescents.<sup>37</sup>

Raising the minimum legal drinking age to 21 years was accompanied by reduced alcohol consumption, traffic crashes, and related fatalities among young persons under age 21 years.<sup>38</sup> Reductions in alcohol-related traffic crashes are associated with many policy and program measures<sup>39</sup>—among them, administrative revocation of licenses for drinking and driving<sup>40</sup> and lower legal blood alcohol limits for youth<sup>41</sup> and adults.<sup>42</sup> Community programs involving multiple city departments and private citizens have reduced driving after drinking and traffic deaths and injuries.<sup>43</sup> In addition, a combination of community mobilization, media advocacy, and enhanced law enforcement has been shown to reduce alcohol-related traffic crashes and sales of alcohol to minors.<sup>44</sup>

Higher prices or taxes for alcoholic beverages are associated with lower alcohol consumption and lower levels of a wide variety of adverse outcomes—including the probability of frequent beer consumption by young persons,<sup>45</sup> the probability of adults drinking five or more drinks on a single occasion,<sup>46</sup> death rates from cirrhosis<sup>47</sup> and motor vehicle crashes,<sup>48, 49</sup> frequency of drinking and driving,<sup>50</sup> and some categories of violent crime.<sup>51</sup> One study suggests that, among adults, the effect of alcoholic beverage prices on frequency of heavy drinking varies with knowledge of the health consequences of heavy drinking: better informed heavy drinkers are more responsive to price changes.<sup>52</sup>

In college settings, brief one-on-one motivational counseling has proved effective in reducing alcohol-related problems among high-risk drinkers.<sup>53</sup> Research on the effect of the density of alcohol outlets on violence is inconclusive.<sup>54, 55</sup>

Many opportunities to prevent drug-related problems have been identified. Core strategies for preventing drug abuse among youth include raising awareness, educating and training parents and others, strengthening families, providing alternative activities, building skills and confidence, mobilizing and empowering communities, and environmental approaches. Studies indicate that making youth and others aware of the health, social, and legal consequences associated with drug abuse has an impact on use. Parents also play a primary role in helping their children understand the dangers of substance abuse and in communicating their expectation that drug and alcohol use will not be tolerated. Research suggests that improving parent/child attachment and supervision and monitoring also protects youth from substance abuse. Alternative activities for youth teach social skills and provide an alternative to substance abuse. According to one study, programs that help young persons develop psycho social and peer resistance skills are more successful than other programs in preventing drug abuse.<sup>21</sup> Findings suggest that having community partnerships in place for sustained periods of time produces



significant results in decreasing alcohol and drug use in males. Literature shows that having “buy-in” from local participants greatly enhances the success of any endeavor. Studies also show that changing norms is extremely effective in reducing substance abuse and related problems.<sup>21</sup>

For substance abuse prevention to be effective, people need access to culturally, linguistically, and age-appropriate services; job training and employment; parenting training; general education; more behavioral research; and programs for women, dually diagnosed patients, and persons with learning disabilities. Particular attention must be given to young persons under age 18 years who have an addicted parent, since these youth are at increased risk for substance abuse. Because alcoholism and drug abuse continue to affect lesbians, gay men, and transgendered persons at two to three times the rate of the general population,<sup>56</sup> programs that address the special risks and needs of these population groups also are needed. Government, employers, the faith community, and other organizations in the private and nonprofit sectors must increase their level of cooperation and coordination to ensure that multiple service needs are met.

The prevention and treatment of substance abuse require that all abused substances be addressed—from tobacco and alcohol to marijuana and other illicit drugs. Tobacco prevention and treatment are equally important parts of a comprehensive substance abuse prevention program. (See Focus Area 27. Tobacco Use.)

## Interim Progress Toward Year 2000 Objectives

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Of the 20 substance abuse objectives in Healthy People 2000, 2 have met or surpassed their targets. More than 90 percent of worksites with 50 or more employees have adopted policies on alcohol and drugs (1995), exceeding the Healthy People 2000 target of 60 percent. One additional target has been met—monitoring access to treatment programs by the under served (1996).

Progress has been made toward other objectives. Alcohol-related motor vehicle crash deaths declined to 6.5 per 100,000 population (1996), attributed in part to passage of State laws mandating administrative license revocation, setting maximum blood alcohol concentration levels of 0.08 percent for drivers aged 21 years and older, and establishing zero tolerance for alcohol in the blood of drivers under age 21 years. The cirrhosis death rate declined to 7.4 per 100,000 population, although the rate for American Indians or Alaska Natives remains significantly higher than that of other groups. Average age of first use of harmful substances by adolescents aged 12 to 17 years has increased. In addition, past-month use of alcohol by adolescents aged 12 to 17 years has declined, as has steroid use by high school seniors.

Less progress has been made toward other targets. Past-month use of marijuana and cigarettes among adolescents aged 12 to 17 years has increased since 1994.

Among high school seniors, both perception of harm and perception of social disapproval of substance abuse have declined. For the total population, rates of drug-related deaths and drug-abuse-related emergency department visits have increased.

Note: Unless otherwise noted, data are from Centers for Disease Control and Prevention, National Center for Health Statistics, *Healthy People 2000 Review, 1998-99*.

### **Substance Abuse**

**Goal:** Reduce substance abuse to protect the health, safety, and quality of life for all, especially children.

#### **Number    Objective**

##### **Adverse Consequences of Substance Use and Abuse**

- 26-1        Motor vehicle crash deaths and injuries
- 26-2        Cirrhosis deaths
- 26-3        Drug-induced deaths
- 26-4        Drug-related hospital emergency department visits
- 26-5        Alcohol-related hospital emergency department visits
- 26-6        Adolescents riding with a driver who has been drinking
- 26-7        Alcohol- and drug-related violence
- 26-8        Lost productivity

##### **Substance Use and Abuse**

- 26-9        Substance-free youth
- 26-10       Adolescent and adult use of illicit substances
- 26-11       Binge drinking
- 26-12       Average annual alcohol consumption
- 26-13       Low-risk drinking among adults
- 26-14       Steroid use among adolescents
- 26-15       Inhalant use among adolescents

##### **Risk of Substance Use and Abuse**

- 26-16       Peer disapproval of substance abuse
- 26-17       Perception of risk associated with substance abuse

##### **Treatment for Substance Abuse**

- 26-18       Treatment gap for illicit drugs
- 26-19       Treatment in correctional institutions
- 26-20       Treatment for injection drug use
- 26-21       Treatment gap for problem alcohol use

**State and Local Efforts**

- 26-22 Hospital emergency department referrals
- 26-23 Community partnerships and coalitions
- 26-24 Administrative license revocation laws
- 26-25 Blood alcohol concentration (BAC) levels for motor vehicle drivers

## Adverse Consequences of Substance Use and Abuse

### 26-1. Reduce deaths and injuries caused by alcohol- and drug-related motor vehicle crashes.

Target and baseline:

Objective	Reduction in Consequences of Motor Vehicle Crashes	1997 Baseline	2010 Target
		Per 100,000 Population	
26-1a.	Alcohol-related deaths	6.1	4
26-1b.	Alcohol-related injuries	122	65
26-1c.	Drug-related deaths	Developmental	
26-1d.	Drug-related injuries	Developmental	

**Target setting method:** Consistent with the U.S. Department of Transportation for 26-1a; 47 percent improvement for 26-1b.

**Data source:** Fatality Analysis Reporting System (FARS), DOT, National Highway Traffic Safety Administration (NHTSA); General Estimates System (GES), DOT.

Total Population, 1997 (unless noted)	Alcohol-Related Motor Vehicle Crashes	
	26-1a. Deaths	26-1b. Injuries
	Rate per 100,000	
<b>TOTAL</b>	6.1	122
<b>Race and ethnicity</b>		
American Indian or Alaska Native	19.2 (1995)	DNC
Asian or Pacific Islander	2.4 (1995)	DNC
Asian	DNC	DNC
Native Hawaiian and other Pacific Islander	DNC	DNC
Black or African American	6.4 (1995)	DNC
White	6.0 (1995)	DNC

Total Population, 1997 (unless noted)	Alcohol-Related Motor Vehicle Crashes	
	26-1a. Deaths	26-1b. Injuries
	Rate per 100,000	
Hispanic or Latino	DNA	DNC
Not Hispanic or Latino	DNA	DNC
Black or African American	DNA	DNC
White	DNA	DNC
<b>Gender</b>		
Female	2.9	DNA
Male	9.4	DNA
<b>Age</b>		
All persons aged 15 to 24 years	11.7	DNA
<b>Education level</b>		
Less than high school	DNC	DNC
High school graduate	DNC	DNC
At least some college	DNC	DNC

DNA = Data have not been analyzed. DNC = Data are not collected. DSU = Data are statistically unreliable.

Progress has been achieved in reducing the rate of alcohol-related driving fatalities, which declined from 9.8 deaths per 100,000 population in 1987 to 6.1 deaths per 100,000 in 1997. However, fatal injuries caused by motor vehicle crashes in which either a driver or nonoccupant (that is, pedestrian or bicyclist) was under the influence of alcohol or drugs remain a serious problem in the United States.

Of particular concern is the fatality rate among Native Americans and persons aged 15 to 24 years. In 1994, the alcohol involvement rate in fatal traffic crashes for American Indian or Alaska Native men was four times higher (28 per 100,000 population) than for the general population. For persons aged 15 to 24 years, the rate was 11.7 per 100,000 population in 1997. Based on these rates, about 3 in every 10 persons in the United States will be involved in an alcohol-related crash sometime in their lives. The alcohol-related traffic fatality rate for youth, however, has decreased by more than 50 percent since 1982, from 22 deaths per 100,000 population to 10 deaths per 100,000 population in 1996.<sup>57</sup> The National Highway Traffic Safety Administration estimates that since 1975, over 17,300 lives have been saved by enforcement of minimum drinking age laws.<sup>57</sup>

The number of children who are victims of alcohol- and drug-related traffic crashes also is significant. In 1997, of traffic crashes in which 3,157 children under age 16 years were killed, nearly 21 percent were alcohol related.

Crash-related injuries also are a serious problem. In 1997, crash-related injuries totaled 3,399,000, compared to 41,967 crash-related deaths.<sup>58</sup> A reduction in all injuries resulting from alcohol- and drug-related driving is needed. Such injuries significantly contribute to emergency department use and overall health care costs and cause personal tragedies for families.

Although alcohol and its relationship to motor vehicle crashes has been studied more extensively than other substances, tracking drug-related fatalities and injuries is needed. This extension will promote the understanding that driving while under the influence of drugs is a serious problem and will help reduce drug-related fatalities.

Reductions in traffic crashes are the result, in part, of many policy and program measures—among them, raising the minimum legal drinking age to 21 years,<sup>59</sup> administrative revocation of licenses for drinking and driving,<sup>60</sup> lower legal blood alcohol limits for youth<sup>41</sup> and adults,<sup>42</sup> and higher prices through increased taxation of alcoholic beverages.<sup>48,49</sup> Higher prices for alcoholic beverages also are associated with reduced frequency of drinking and driving.<sup>50</sup> In addition, community programs involving multiple city departments and private citizens have reduced both driving after drinking and traffic deaths and injuries.<sup>43</sup>

## 26-2. Reduce cirrhosis deaths.

**Target:** 3 deaths per 100,000 population.

**Baseline:** 9.4 cirrhosis deaths per 100,000 population in 1998 (preliminary data; age adjusted to the year 2000 standard population).

**Target setting method:** Better than the best.

**Data source:** National Vital Statistics System (NVSS), CDC, NCHS.

Total Population, 1997*	Cirrhosis Deaths Rate per 100,000
<b>TOTAL</b>	9.6
<b>Race and ethnicity</b>	
American Indian or Alaska Native	24.2
Asian or Pacific Islander	3.4
Asian	DNC
Native Hawaiian and other Pacific Islander	DNC
Black or African American	10.7
White	9.6

<b>Total Population, 1997*</b>	<b>Cirrhosis Deaths</b> Rate per 100,000
Hispanic or Latino	15.9
Not Hispanic or Latino	9.6
Black or African American	10.9
White	8.9
<b>Gender</b>	
Female	6.2
Male	13.6
<b>Education level (aged 25 to 64 years)</b>	
Less than high school	20.1
High school graduate	14.0
At least some college	5.8

DNA = Data have not been analyzed. DNC = Data are not collected. DSU = Data are statistically unreliable.

Note: Age adjusted to the year 2000 standard population.

\*New data for population groups will be added when available.

Sustained heavy alcohol consumption is the leading cause of cirrhosis, 1 of the 10 leading causes of death in the United States.<sup>61, 62, 63, 64, 65</sup> Cirrhosis occurs when healthy liver tissue is replaced with scarred tissue until the liver is unable to function effectively. Changes in alcohol consumption patterns over time are associated with changes in the death rate from cirrhosis. Improvements in disease management and in the availability of treatment for alcoholism, however, also may have contributed to a decline in cirrhosis deaths since 1973. In addition, higher State excise tax rates on distilled spirits are associated with lower death rates from cirrhosis.<sup>47</sup>

### **26-3. Reduce drug-induced deaths.**

**Target:** 1 per 100,000 population.

**Baseline:** 5.1 drug-induced deaths per 100,000 population in 1998 (preliminary data; age adjusted to the year 2000 standard population).

**Target setting method:** Better than the best.

**Data source:** National Vital Statistics System (NVSS), CDC, NCHS.



<b>Total Population, 1997*</b>	<b>Drug-Induced Deaths</b> Rate per 100,000
<b>TOTAL</b>	6.0
<b>Race and ethnicity</b>	
American Indian or Alaska Native	6.6
Asian or Pacific Islander	1.6
Asian	DNC
Native Hawaiian and other Pacific Islander	DNC
Black or African American	9.0
White	5.7
Hispanic or Latino	6.0
Not Hispanic or Latino	6.0
Black or African American	9.2
White	5.6
<b>Gender</b>	
Female	3.6
Male	8.3
<b>Education level (aged 25 to 64 years)</b>	
Less than high school	18.4
High school graduate	13.9
At least some college	5.8

DNA = Data have not been analyzed. DNC = Data are not collected. DSU = Data are statistically unreliable.

Note: Age adjusted to the year 2000 standard population.

\*New data for population groups will be added when available.

Causes of drug-induced deaths include drug psychosis, drug dependence, suicide, and intentional and accidental poisoning that result from illicit drug use. Declining initiation, number of cases, and intensity of drug abuse should be reflected in fewer drug-induced deaths. However, the prevention of suicide, accidental poisoning, and fatal interaction among medications contributes to changes in the statistics measured in this objective.

#### **26-4. Reduce drug-related hospital emergency department visits.**

**Target:** 350,000 visits per year.

**Baseline:** 542,544 drug-related hospital emergency department visits in 1998.

**Target setting method:** 35 percent improvement.

**Data source:** Drug Abuse Warning Network (DAWN), SAMHSA.

Drug-related hospital emergency department (ED) visits are another major indicator of the harmful effects of drugs. In hospital EDs, a “drug-related episode” is defined as one resulting from the nonmedical use of a drug. This includes the unprescribed use of prescription drugs, use of drugs contrary to approved labeling, and use of illicit drugs. Episodes are abstracted from medical records by hospital staff or hired clerks. To be counted as having a drug-related episode, the ED patient must be aged 6 years or older and meet four criteria: the patient was treated in the hospital’s ED; the presenting problem was induced by or related to drug use; the case involved the nonmedical use of a legal drug or any use of an illegal drug; and the patient’s reason for taking the substance(s) included dependence, suicide attempt or gesture, or psychic effects.

“Suicide attempt or gesture” and dependence were the most frequently cited motives for taking a substance that resulted in an ED episode, with each accounting for 35 percent of all episodes in 1998. In 1998, 55 percent of the drug-related ED episodes occurred among adolescents and adults aged 16 to 34 years and 44 percent among persons aged 35 years and older. Whites accounted for 54 percent of drug-related ED episodes. African Americans and Hispanics accounted for 25 percent and 11 percent, respectively.<sup>66</sup>

#### **26-5. (Developmental) Reduce alcohol-related hospital emergency department visits.**

**Potential data source:** National Hospital Ambulatory Medical Care Survey (NHAMCS), CDC, NCHS.

Alcohol consumption is associated with a wide range of events that can result in ED visits—among them, traffic crashes, violence, and alcohol poisoning. In 1996, alcohol-related hospital ED visits (2.2 million) accounted for 2.4 percent of all ED visits.<sup>67</sup> Visits related to both alcohol and drugs accounted for an additional 0.4 percent. However, these figures, based on a national probability survey of hospital EDs, are probably underestimates since information on alcohol involvement often is missing from ED medical records.<sup>67</sup>

An analysis of 1995 data from the same survey found that alcohol-related visits are 1.6 times as likely as other ED visits to be injury related; in 20 percent of alcohol-related visits, the principal diagnosis is alcohol abuse or alcohol dependence.<sup>68</sup> Other studies, based on smaller samples and different measures of alcohol

involvement, suggest a large proportion of young persons and trauma victims are intoxicated when they visit the ED.<sup>69, 70, 71</sup>

Screening for alcohol problems in the ED offers an opportunity for early intervention and appropriate referral of patients and may reduce subsequent illness, injury, and death.<sup>72</sup> Policy measures that reduce specific alcohol-related problems<sup>11</sup>—for example, traffic crashes or violence—also may help reduce alcohol-related ED visits.

**26-6. Reduce the proportion of adolescents who report that they rode, during the previous 30 days, with a driver who had been drinking alcohol.**

**Target:** 30 percent.

**Baseline:** 37 percent of students in grades 9 through 12 reported riding with a driver who had been drinking alcohol in 1997.

**Target setting method:** Better than the best.

**Data source:** Youth Risk Behavior Survey (YRBS), CDC, NCCDPHP.

Students in Grades 9 Through 12, 1997	Rode With Drinking Driver During Previous 30 Days Percent
<b>TOTAL</b>	37
<b>Race and ethnicity</b>	
American Indian or Alaska Native	DSU
Asian or Pacific Islander	DSU
Asian	DNC
Native Hawaiian and other Pacific Islander	DNC
Black or African American	DNC
White	DNC
Hispanic or Latino	43
Not Hispanic or Latino	DNC
Black or African American	34
White	37
<b>Gender</b>	
Female	35
Male	38

<b>Students in Grades 9 Through 12, 1997</b>	<b>Rode With Drinking Driver During Previous 30 Days</b> Percent
<b>Family income level</b>	
Poor	DNC
Near poor	DNC
Middle/high income	DNC

DNA = Data have not been analyzed. DNC = Data are not collected. DSU = Data are statistically unreliable.

Health risk behaviors that contribute to the leading causes of illness, death, and social problems among youth and adults often are established during youth, extend into adulthood, and are interrelated. In the United States, 72 percent of all deaths among school-aged youth and young adults result from four causes: motor vehicle crashes, other unintentional injuries, homicide, and suicide. Many high school students practice behaviors that may increase their likelihood of death from these four causes. Hispanic students are more likely than African American or white students to ride with a driver who has been drinking.

Rates of drinking across State surveys ranged from 19.4 percent to 52.5 percent (median: 36.0 percent). Across the local surveys, the rates ranged from 20.7 percent to 43.1 percent (median: 32.1 percent).<sup>73</sup> Reducing the number of adolescents who ride in a motor vehicle with another adolescent driver who has been drinking is an important step to lower motor-vehicle related deaths and injuries.

## **26-7. (Developmental) Reduce intentional injuries resulting from alcohol- and illicit drug-related violence.**

**Potential data source:** National Crime Victimization Survey (NCVS), U.S. Department of Justice, Bureau of Justice Statistics.

A review of the literature found that the percentage of homicide offenders who were drinking when they committed the offense ranged from 7 to 85 percent, with most studies finding the figure greater than 60 percent.<sup>74</sup> Drugs, and most commonly alcohol, also are a factor in a significant number of firearm-related deaths.<sup>75</sup> In 1996, juvenile and adult arrestees testing positive for drugs had been frequently arrested for violent offenses, such as robbery, assault, and weapons offenses. Two-thirds of victims who experienced violence by an intimate (a current or former spouse, boyfriend, or girlfriend) reported that alcohol had been involved. Among spousal victims, three out of four incidents involved an offender who was drinking. Thirty-one percent of strangers who were victimized believed that the offender was using alcohol.<sup>76</sup> Efforts are underway to establish targeted prevention and treatment programs aimed at reducing violence related to or caused by alcohol

and drug use.<sup>77, 78</sup> Efforts are underway to develop surveillance systems aimed at reinforcing local community activities.<sup>79</sup>

## **26-8. (Developmental) Reduce the cost of lost productivity in the workplace due to alcohol and drug use.**

**Potential data source:** Periodic estimates of economic costs of alcohol and drug use, NIH, NIAAA and NIDA.

The economic cost of alcohol and drug abuse in the United States was estimated at \$276 billion for 1995,<sup>2</sup> with \$167 billion attributed to alcohol abuse and \$110 billion to drug abuse. Productivity losses accounted for \$119 billion of the costs of alcohol abuse and \$77 billion of the costs of drug abuse.

The majority of alcohol-related productivity losses (62 percent) were attributed to alcohol-related illness. These costs, measured as impaired earnings among those with a history of alcohol dependence, may result from increased unemployment, poor job performance, and limited career advancement. The adverse effects of early alcohol use on educational attainment may underlie these effects. Productivity losses were greatest for males who started drinking before age 15 years.

For drug abuse, most (56 percent) of the estimated productivity losses were associated with crime, including lost earnings of victims (3 percent) and incarcerated perpetrators (26 percent) of drug-related crime and foregone legitimate earnings because of participation in the drug trade (28 percent). Studies from offender populations have found early onset of drinking and drug use and high dropout rates; these may reflect causal linkages.<sup>2</sup>

As indicators of the adverse consequences of alcohol and drug misuse, estimates of lost productivity have important limitations, including concerns about statistical and methodological issues and data quality and completeness. For example, productivity losses cannot be observed directly, implying some inherent imprecision in these estimates, so that changes in productivity losses may not be detected. Also, there is persistent uncertainty in quantifying the causal roles of alcohol and drugs in generating productivity losses. Finally, some likely effects on productivity are omitted from current estimates, mainly because suitable data are lacking. These measurement concerns notwithstanding, efforts to reduce or delay alcohol and drug use may lead to significant reductions in productivity losses over the long run.

## Substance Use and Abuse

### 26-9. Increase the age and proportion of adolescents who remain alcohol and drug free.

Target and baseline:

Objective	Increase Average Age of First Use in Adolescents Aged 12 to 17 Years	1997 Baseline	2010 Target
		Average Age in Years	
26-9a.	Alcohol	13.1	16.1
26-9b.	Marijuana	13.7	17.4

**Target setting method:** Better than the best for alcohol use; consistent with Office of National Drug Control Policy for marijuana use.

**Data source:** National Household Survey on Drug Abuse (NHSDA), SAMHSA.

Adolescents Aged 12 to 17 Years, 1997	26-9a. First Alcohol Use Average Age in Years	26-9b. First Marijuana Use Average Age in Years
<b>TOTAL</b>	13.1	13.7
<b>Race and ethnicity</b>		
American Indian or Alaska Native	13.3	14.1
Asian or Pacific Islander	12.7	13.8
Asian	DNC	DNC
Native Hawaiian and other Pacific Islander	DNC	DNC
Black or African American	12.9	13.6
White	13.1	13.7
Hispanic or Latino	13.0	13.5
Not Hispanic or Latino	DNA	DNA
Black or African American	DNA	DNA
White	DNA	DNA
<b>Gender</b>		
Female	13.4	14.0
Male	12.7	13.5

Adolescents Aged 12 to 17 Years, 1997	26-9a. First Alcohol Use	26-9b. First Marijuana Use
	Average Age in Years	
Family income level		
Poor	12.9	13.2
Near poor	13.0	13.8
Middle/high income	13.1	13.8

DNA = Data have not been analyzed. DNC = Data are not collected. DSU = Data are statistically unreliable.

**Target and baseline:**

<b>Objective</b>	<b>Increase in High School Seniors Never Using Substances</b>	<b>1998 Baseline</b>	<b>2010 Target</b>
		<b>Percent</b>	
<b>26-9c.</b>	Alcoholic beverages	19	29
<b>26-9d.</b>	Illicit drugs	46	56

**Target setting method:** Better than the best.

**Data source:** Monitoring the Future Study, NIH, NIDA.

<b>High School Seniors, 1998</b>	<b>26-9c. Never Used Alcoholic Beverages</b>	<b>29-9d. Never Used Any Illicit Drug</b>
	<b>Percent</b>	
<b>TOTAL</b>	19	46
<b>Race and ethnicity</b>		
American Indian or Alaska Native	DSU	DSU
Asian or Pacific Islander	DNC	DNC
Asian	DSU	DSU
Native Hawaiian and other Pacific Islander	DNC	DNC
Black or African American	28	55
White	16	44
Hispanic or Latino	18	43
Not Hispanic or Latino	DNC	DNC
Black or African American	DNC	DNC
White	DNC	DNC

High School Seniors, 1998	26-9c. Never Used Alcoholic Beverages	29-9d. Never Used Any Illicit Drug
	Percent	
	Gender	
Female	19	50
Male	18	43
Family income level		
Poor	DNC	DNC
Near poor	DNC	DNC
Middle/high income	DNC	DNC

DNA = Data have not been analyzed. DNC = Data are not collected. DSU = Data are statistically unreliable.

An important goal of U.S. policy for the prevention of substance abuse among youth is to increase the percentage of young persons who reach adulthood without using tobacco, illicit drugs, or alcohol. (See Focus Area 27. Tobacco Use.) Strengthening the ability of children and teenagers to reject all such substances is an important and critical element in prevention activities because the required skills and attitudes can carry over into adulthood, long after family constraints and other influences have lost their effectiveness.<sup>80</sup>

From 1985 until 1995, the percentage of high school seniors who reported they had never used tobacco, drugs, or alcohol increased dramatically.<sup>81</sup> This increase clearly demonstrated the value of the national investment in prevention because it followed many years of virtually no change in the percentage of high school seniors who reported they had never used any substance.

To achieve overall prevention goals, local activities are important. Some of the best prevention approaches involve comprehensive, multistrategy prevention interventions. Comprehensive community-based programs include interventions that influence individual behavior and attitudes through education, for example, and interventions that change environments through controls on the availability of substances. Comprehensive programs must be applied universally to the general population and in a more intensive fashion to selected and indicated groups and persons known to be at high risk for serious drug problems or to targeted groups of persons already exhibiting early signs of drug use. The need to sustain universal preventive interventions, selective preventive interventions, and indicated preventive interventions requires coordination among schools, State and local governments, businesses, the faith community, civic groups, and other elements of the community.



## 26-10. Reduce past-month use of illicit substances.

**26-10a.** Increase the proportion of adolescents not using alcohol or any illicit drugs during the past 30 days.

**Target:** 89 percent.

**Baseline:** 77 percent of adolescents aged 12 to 17 years reported no alcohol or illicit drug use in past 30 days in 1997.

**Target setting method:** Better than the best.

**Data source:** National Household Survey on Drug Abuse (NHSDA), SAMHSA.

Adolescents Aged 12 to 17 Years, 1997	26-10a. No Alcohol or Illicit Drug Use in Past 30 Days	No Alcohol Use in Past 30 Days*	No Illicit Drug Use in Past 30 Days*
	Percent		
<b>TOTAL</b>	77	80	89
<b>Race and ethnicity</b>			
American Indian or Alaska Native	55	DSU	DSU
Asian or Pacific Islander	86	DSU	DSU
Asian	DNC	DNC	DNC
Native Hawaiian and other Pacific Islander	DNC	DNC	DNC
Black or African American	80	DNA	DNA
White	76	DNA	DNA
Hispanic or Latino	78	81	90
Not Hispanic or Latino	DNA	DNA	DNA
Black or African American	DNA	84	89
White	DNA	78	88
<b>Gender</b>			
Female	78	80	89
Male	76	79	88
<b>Family income level</b>			
Poor	78	DNA	DNA
Near poor	78	DNA	DNA
Middle/high income	77	DNA	DNA

DNA = Data have not been analyzed. DNC = Data are not collected. DSU = Data are statistically unreliable.

\*Data for no alcohol use and no illicit drug use are displayed to further characterize the issue.

**26-10b.** Reduce the proportion of adolescents reporting use of marijuana during the past 30 days.

**Target:** 0.7 percent.

**Baseline:** 9.4 percent of adolescents aged 12 to 17 years reported marijuana use in past 30 days in 1997.

**Target setting method:** Better than the best (consistent with the Office of National Drug Control Policy).

**Data source:** National Household Survey on Drug Abuse (NHSDA), SAMHSA.

Adolescents Aged 12 to 17 Years, 1997	Use of Marijuana in Past 30 Days Percent
<b>TOTAL</b>	9.4
<b>Race and ethnicity</b>	
American Indian or Alaska Native	3.8
Asian or Pacific Islander	0.8
Asian	DNC
Native Hawaiian and other Pacific Islander	DNC
Black or African American	9.2
White	9.5
Hispanic or Latino	8.4
Not Hispanic or Latino	9.5
Black or African American	9.1
White	9.8
<b>Gender</b>	
Female	8.4
Male	10.3
<b>Family income level</b>	
Poor	DNA
Near poor	DNA
Middle/high income	DNA

DNA = Data have not been analyzed. DNC = Data are not collected. DSU = Data are statistically unreliable.

**26-10c.** Reduce the proportion of adults using any illicit drug during the past 30 days.

**Target:** 3.0 percent.

**Baseline:** 5.8 percent of adults aged 18 years and older used any illicit drug during the past 30 days in 1997.

**Target setting method:** Better than the best (consistent with Office of National Drug Control Policy).

**Data source:** National Household Survey on Drug Abuse (NHSDA), SAMHSA.

Adults Aged 18 Years and Older, 1997	Illicit Drug Use in Past 30 Days Percent
<b>TOTAL</b>	5.8
<b>Race and ethnicity</b>	
American Indian or Alaska Native	11.3
Asian or Pacific Islander	3.4
Asian	DNC
Native Hawaiian and other Pacific Islander	DNC
Black or African American	7.1
White	5.7
Hispanic or Latino	5.1
Not Hispanic or Latino	DNA
Black or African American	DNA
White	DNA
<b>Gender</b>	
Female	3.8
Male	8.1
<b>Education level</b>	
Less than high school	6.9
High school graduate	6.0
At least some college	5.4

DNA = Data have not been analyzed. DNC = Data are not collected. DSU = Data are statistically unreliable.

Past-month use of any illicit drug and marijuana was about the same in 1997 as in 1996 and most of the 1990s for adults aged 18 years and older.<sup>82</sup> But young adults aged 18 to 25 years continued to be the age group with the highest rates of use.

Past-month use of drugs increased among adolescents aged 12 to 17 years, and the 1997 rates of past month use of any illicit drug (11 percent) and marijuana (9 percent) were significantly higher than the 1996 rates of use by this age group (9 percent and 7 percent, respectively). Furthermore, past-month use of illicit drugs by youths was significantly higher in 1997 than at any time during the 4 years between 1991 and 1994. Past-month use of alcohol was about the same in 1997 as in 1996.<sup>82</sup>

The first goal of the 1998 National Drug Control Strategy is to “educate and enable America’s youth to reject illegal drugs as well as the underage use of alcohol and tobacco.”<sup>83</sup> In response to this goal, specific targets for the reduction of drug use among adolescents aged 12 to 17 years have been established under the Youth Substance Abuse Prevention Initiative (YSAPI). These targets, which have a baseline of 1996 and goals for the year 2002 (7 years), are as follows:

- Reverse the upward trend and reduce past-month use of marijuana among adolescents aged 12 to 17 years by 20 percent (1996 baseline: 7.1 percent; target: 5.7 percent in 2002).
- Reduce past-month use of any illicit drugs among adolescents aged 12 to 17 years by 20 percent (1996 baseline: 9.0 percent; target: 7.2 percent in 2002).
- Reduce past-month use of alcohol among adolescents aged 12 to 17 years by 10 percent (1996 baseline: 18.8 percent; target: 16.9 percent in 2002).

These targets were used as the basis for identifying Healthy People 2010 objectives.

Adopting a multicomponent approach to youth substance abuse prevention may increase the long-term effectiveness of prevention efforts. This approach includes focusing on mobilizing and leveraging resources, raising public awareness, and countering pro-use messages. Several strategies may be effective, such as increasing the involvement of parents and parent groups at the local level, increasing the number of adult volunteers involved in drug prevention at the local level, changing normative attitudes among youth from “everyone’s using drugs” to “everyone has better things to do than drugs,” and increasing the proportion of youth participating in positive skill-building activities.

**26-11. Reduce the proportion of persons engaging in binge drinking of alcoholic beverages.**

**Target and baseline:**

Objective	Reduction in Students Engaging in Binge Drinking During Past 2 Weeks	1998	2010
		Baseline	Target
		Percent	
<b>26-11a.</b>	High school seniors	32	11
<b>26-11b.</b>	College students	39	20

**Target setting method:** Better than the best.

**Data source:** Monitoring the Future Study, NIH, NIDA.

High School Seniors and College Students, 1998	Binge Drinking Past 2 Weeks	
	26-11a. High School Seniors	26-11b. College Students
	Percent	
<b>TOTAL</b>	32	39
<b>Race and ethnicity</b>		
American Indian or Alaska Native	DSU	DSU
Asian or Pacific Islander	DNC	DNC
Asian	DSU	DSU
Native Hawaiian and other Pacific Islander	DNC	DNC
Black or African American	12	DNA
White	36	DNA
Hispanic or Latino	28	DSU
Not Hispanic or Latino	DNC	DNC
Black or African American	DNC	DNC
White	DNC	DNC
<b>Gender</b>		
Female	24	31
Male	39	52
<b>Family income level</b>		
Poor	DNC	DNC
Near poor	DNC	DNC
Middle/high income	DNC	DNC

DNA = Data have not been analyzed. DNC = Data are not collected. DSU = Data are statistically unreliable.

**Target and baseline:**

Objective	Reduction in Adults and Adolescents Engaging in Binge Drinking During Past Month	1997 Baseline	2010 Target
Percent			
<b>26-11c.</b>	Adults aged 18 years and older	16	6
<b>26-11d.</b>	Adolescents aged 12 to 17 years	8.3	3.0

**Target setting method:** Better than the best.

**Data source:** National Household Survey on Drug Abuse (NHSDA), SAMHSA.

Select Age Groups Engaging in Binge Drinking During Past Month, 1997	26-11c. Adults Aged 18 Years and Older	26-11d. Adolescents Aged 12 to 17 Years
Percent		
<b>TOTAL</b>	16	8.3
<b>Race and ethnicity</b>		
American Indian or Alaska Native	22	DSU
Asian or Pacific Islander	7	DSU
Asian	DNC	DNC
Native Hawaiian and other Pacific Islander	DNC	DNC
Black or African American	DNA	DNA
White	DNA	DNA
Hispanic or Latino	18	7.4
Not Hispanic or Latino	DNA	DNA
Black or African American	12	3.9
White	17	9.3
<b>Gender</b>		
Female	8	6.8
Male	25	9.3
<b>Family income level</b>		
Poor	15	DNA
Near poor	15	DNA
Middle/high income	17	DNA

DNA = Data have not been analyzed. DNC = Data are not collected. DSU = Data are statistically unreliable.

Binge drinking is a national problem, especially among males and young adults. Nearly 15 percent of persons 12 or older reported binge drinking in the past 30 days, with young adults aged 18 to 25 years more likely (27 percent) than all other age groups to have engaged in binge drinking. In all age groups, more males than females engaged in binge drinking; among adults, the ratio was two or three to one. Rates of binge drinking varied little by educational attainment. People with some college, however, were more likely than those with less than a high school education to binge drink.

The perceived acceptance of problematic drug-using behavior among family, peers, and society influences an adolescent's decision to use or avoid alcohol, tobacco, and drugs.<sup>12</sup> The perception that alcohol use is socially acceptable correlates with the fact that more than 80 percent of American youth consume alcohol before their 21st birthday, whereas the lack of social acceptance of other drugs correlates with comparatively lower rates of use. Similarly, widespread societal expectations that young persons will engage in binge drinking may encourage this highly dangerous form of alcohol consumption.<sup>5</sup>

Passage of higher minimum purchase ages for alcoholic beverages during the mid-1980s reduced but did not eliminate under aged drinking.<sup>59</sup> Many States are examining the use of additional restrictions and penalties for alcoholic beverage retailers to ensure compliance with the minimum purchase age.

To address the problem of binge drinking and reduce access to alcohol by under-aged persons, several additional policies and strategies may be effective, including:

- Tougher State restrictions and penalties for alcoholic beverage retailers to ensure compliance with the minimum purchase age.
- Restrictions on the sale of alcoholic beverages at recreational facilities and entertainment events where minors are present.
- Improved enforcement of State laws prohibiting distribution of alcoholic beverages to anyone under age 21 years and more severe penalties to discourage distribution to underaged persons.
- Implementation of server training and standards for responsible hospitality.<sup>84, 85</sup> (Management and server training educates waitresses, waiters, bartenders, and supervisory staff on ways to avoid serving alcohol to minors and intoxicated persons). States could require periodic server training or use the regulatory authority of alcohol distribution licensing to mandate a minimal level of training for individual servers.
- Institution of a requirement that college students reporting to student health services following a binge drinking incident receive an alcohol screening that

would identify the likelihood of a health risk. An alcohol screening would provide student health services with the information needed to assess the student's drinking and refer the student to an appropriate intervention.

- Restrictions on marketing to underaged populations, including limiting advertisements and promotions. Although alcohol advertising has been found to have little or no effect on overall consumption,<sup>86, 87</sup> this strategy may reduce the demand that results in illicit purchase or binge consumption.
- Higher prices for alcoholic beverages. Higher prices are associated with reductions in the probability of frequent beer consumption by young persons<sup>45</sup> and in the probability of adults drinking five or more drinks on a single occasion.<sup>46</sup>

Binge drinking among women of childbearing age (defined as 18 to 44 years) also is a problem because of the risk for prenatal alcohol exposures. Approximately half of the pregnancies in the United States are unintended,<sup>88</sup> and most women do not know they are pregnant until after the sixth week of gestation.<sup>89</sup> Such prenatal alcohol exposures can result in fetal alcohol syndrome and other alcohol-related neurodevelopmental disorders.<sup>90</sup>

## **26-12. Reduce average annual alcohol consumption.**

**Target:** 2 gallons.

**Baseline:** 2.19 gallons of ethanol per person aged 14 years and older were consumed in 1996.

**Target setting method:** 9 percent improvement.

**Data source:** Alcohol Epidemiologic Data System (AEDS), NIH, NIAAA.

Annual estimates of per capita consumption for persons aged 14 years and over provide a valuable means for monitoring trends in U.S. alcohol consumption. These estimates are based on population figures as they relate to information on beverage sales, tax receipt data, or both. The data come primarily from States, with some data provided by beverage industry sources.

An overall downward trend in per-person ethanol consumption, after a peak in 1981 of 2.76 gallons, masks substantial differences in consumption trends for different types of alcoholic beverages. Per-person consumption of beer, wine, and distilled spirits declined during the 1990s. The sharpest decline occurred for distilled spirits, down by more than 40 percent since its peak in the 1970s. The downward trend in alcohol consumption can be attributed to a variety of factors, including changing lifestyles and heightened awareness of the health and safety risks of excessive alcohol consumption.

Consumption of alcohol can be influenced by laws and regulations, particularly minimum drinking age laws<sup>91</sup> and those that affect the prices of alcoholic beverages. A substantial and growing body of economic research has established that



consumption of beer, wine, and distilled spirits declines in response to increases in the prices or taxes associated with these beverages.<sup>11</sup> Most studies have found that demand for beer is less responsive to price changes than are demands for wine or distilled spirits. In addition, evidence suggests important differences in the price responsiveness of light, moderate, and heavy drinkers. The heaviest-drinking 5 percent of drinkers (who report about four or more standard drinks per day and consume 36 percent of all alcohol)<sup>46</sup> and heavy drinkers who are ill-informed about health problems associated with heavy drinking<sup>52</sup> may not respond significantly to price changes. These findings suggest the importance of using a range of effective prevention and treatment interventions.

### **26-13. Reduce the proportion of adults who exceed guidelines for low-risk drinking.**

**Target and baseline:**

Objective	Reduction in Adults Exceeding Guidelines for Low-Risk Drinking	1992 Baseline	2010 Target
		Percent	
<b>26-13a.</b>	Females	72	50
<b>26-13b.</b>	Males	74	50

**Target setting method:** Better than the best.

**Data source:** National Longitudinal Alcohol Epidemiologic Survey, NIH, NIAAA.

Current Drinkers Aged 21 Years and Older, 1992	26-13a. Females Exceeding Guideline	26-13b. Males Exceeding Guideline
	Percent	
<b>TOTAL</b>	72	74
<b>Race and ethnicity</b>		
American Indian or Alaska Native	85	97
Asian or Pacific Islander	64	53
Asian	DNC	DNC
Native Hawaiian and other Pacific Islander	DNC	DNC
Black or African American	65	75
White	72	74

<b>Current Drinkers Aged 21 Years and Older, 1992</b>	<b>26-13a. Females Exceeding Guideline</b>	<b>26-13b. Males Exceeding Guideline</b>
	Percent	
Hispanic or Latino	72	80
Not Hispanic or Latino	72	74
Black or African American	65	74
White	72	74
<b>Education level</b>		
Less than high school	72	75
High school graduate	73	78
At least some college	71	72

DNA = Data have not been analyzed. DNC = Data are not collected. DSU = Data are statistically unreliable.

Males may be at risk for alcohol-related problems if they drink more than 14 drinks per week or more than 4 drinks per occasion.<sup>92</sup> Females may be at risk if they drink more than seven drinks per week or more than three drinks per occasion.<sup>92</sup> (A drink is defined as 0.54 ounces of ethanol—about the amount of alcohol in 12 ounces of regular beer, 5 ounces of wine, or 1.5 ounces of 80-proof distilled spirits.) Most persons who exceed these guidelines do so by drinking more than the specified maximum number of drinks per occasion at least once a year. Drinking more than the per-occasion maximum impairs mental performance and physical coordination, increasing the risk of injury.

Guidelines for males and females differ in part because females metabolize alcohol less efficiently than males (so they are at greater risk for some health problems than males who drink the same amount). Females also have less body water than males, so they become more intoxicated than males after drinking the same amount of alcohol.<sup>93</sup> Both males and females have less body water as they age. Older persons can lower their risk of alcohol problems by drinking no more than one drink a day.<sup>94</sup>

Some persons should not drink any alcohol.<sup>92, 95</sup> They include:

- Children and adolescents.
- Females who are pregnant or considering pregnancy.
- Persons who are alcohol dependent.
- Persons with health problems (for example, ulcers) that may be made worse by drinking alcohol.

- Persons who are taking prescription or over-the-counter drugs that interact with alcohol.
- Persons who plan to drive or engage in other activities requiring attention or skill.

## 26-14. Reduce steroid use among adolescents.

### Target and baseline:

Objective	Reduction in Steroid Use Among Adolescents in Past Year	1998 Baseline	2010 Target
		Percent	
<b>26-14a.</b>	8th graders	1.2	0.4
<b>26-14b.</b>	10th graders	1.2	0.4
<b>26-14c.</b>	12th graders	1.7	0.4

**Target setting method:** Better than the best.

**Data source:** Monitoring the Future Study, NIH, NIDA.

Adolescents, 1998	Steroid Use in Past Year		
	26-14a. 8th Graders	26-14b. 10th Graders	26-14c. 12th Graders
	Percent		
<b>TOTAL</b>	1.2	1.2	1.7
<b>Race and ethnicity</b>			
American Indian or Alaska Native	DSU	DSU	DSU
Asian or Pacific Islander	DNC	DNC	DNC
Asian	DSU	DSU	DSU
Native Hawaiian and other Pacific Islander	DNC	DNC	DNC
Black or African American	0.7	0.5	0.9
White	1.1	1.3	1.5
Hispanic or Latino	1.4	1.2	2.4
Not Hispanic or Latino	DNC	DNC	DNC
Black or African American	DNC	DNC	DNC
White	DNC	DNC	DNC

Adolescents, 1998	Steroid Use in Past Year		
	26-14a. 8th Graders	26-14b. 10th Graders	26-14c. 12th Graders
	Percent		
Gender			
Female	0.7	0.6	0.3
Male	1.6	1.9	2.8

DNA = Data have not been analyzed. DNC = Data are not collected. DSU = Data are statistically unreliable.

The self-administration by athletes of so-called performance-enhancing substances has led to risky injection practices. These substances include steroids and over-the-counter stimulant drugs and herbs, with steroids the most common. Nonmedical use of steroids poses serious problems since such use is illegal and dangerous. Behavioral and health problems associated with steroid use include suicides, homicides, liver damage, and heart attacks.<sup>96</sup>

Many substance abuse researchers believe that attempts to enhance athletic performance with steroids and other substances reduce the perceived negative consequences of substance abuse and increase the likelihood of using illicit drugs for other purposes. In addition, limited access to needles and other equipment results in a high rate of needle-sharing among adolescent teammates who inject performance-enhancing substances. While steroid use by male athletes has attracted the most attention, information suggests that adolescent females are increasing their use of steroids.<sup>96</sup>

## **26-15. Reduce the proportion of adolescents who use inhalants.**

**Target:** 0.7 percent.

**Baseline:** 4.4 percent of adolescents aged 12 to 17 years used inhalants in the past year in 1997.

**Target setting method:** Better than the best.

**Data source:** National Household Survey on Drug Abuse (NHSDA), SAMHSA.

<b>Adolescents Aged 12 to 17 Years, 1997</b>	<b>Inhalant Use in Past Year Percent</b>
<b>TOTAL</b>	4.4
<b>Race</b>	
American Indian or Alaska Native	DSU
Asian or Pacific Islander	DSU
Asian	DNC
Native Hawaiian and other Pacific Islander	DNC
Black or African American	DNA
White	DNA
Hispanic or Latino	3.7
Not Hispanic or Latino	DNA
Black or African American	1.0
White	5.2
<b>Gender</b>	
Female	4.5
Male	4.4
<b>Family income level</b>	
Poor	DNA
Near poor	DNA
Middle/high income	DNA
<b>Regions</b>	
Northeast	2.9
North central	3.4
South	4.2
West	7.1

DNA = Data have not been analyzed. DNC = Data are not collected. DSU = Data are statistically unreliable.

Approximately 12.3 million, or 6.0 percent, of the 216 million persons surveyed in 1997 reported lifetime inhalant use.<sup>97</sup> About 2.3 million persons (1 percent) used inhalants in the past year, and 883,000 persons (0.4 percent) used them in the past month. Among adolescents aged 12 to 17 years between 1996 and 1997, there was a significant increase in the lifetime rate of inhaling gasoline or lighter fluid fumes (from 1.9 percent in 1996 to 2.7 percent in 1997), spray paint (from 1.4 percent in 1996 to 2.2 percent in 1997), and anesthetics, such as ether (0.2 percent in 1996 to 0.4 percent in 1997). Among adolescents, there were no significant differences between males and females in the use of inhalants.

Overall, important age, racial and ethnic, and regional differences were found in the number of cases of inhalant use in 1997. Current use was highest among adolescents aged 12 to 17 years, whereas lifetime use was highest among the 18- to 25-year age group. For both lifetime and past-year use, whites were more likely to report lifetime inhalant use than either African Americans or Hispanics. Hispanics reported higher rates than African Americans. Respondents living in metropolitan areas were significantly more likely to have used inhalants in the past year than those living in nonmetropolitan areas. Respondents in the West reported significantly higher levels of past-year inhalant use than did those in all other regions.<sup>18</sup>

## Risk of Substance Use and Abuse

### 26-16. Increase the proportion of adolescents who disapprove of substance abuse.

Target and baseline:

Objective	Increase in Adolescents Who Disapprove of Having One or Two Alcoholic Drinks Nearly Every Day	1998 Baseline	2010 Target
		Percent	
26-16a.	8th graders	77	83
26-16b.	10th graders	75	83
26-16c.	12th graders	69	83

Target setting method: Better than the best.

Data source: Monitoring the Future Study, NIH, NIDA.

Adolescents, 1998	Disapproval of Daily Alcohol Drinking		
	26-16a. 8th Graders	26-16b. 10th Graders	26-16c. 12th Graders
	Percent		
<b>TOTAL</b>	77	75	69
<b>Race and ethnicity</b>			
American Indian or Alaska Native	DSU	DSU	DSU
Asian or Pacific Islander	DNC	DNC	DNC
Asian	DSU	DSU	DSU
Native Hawaiian and other Pacific Islander	DNC	DNC	DNC

Adolescents, 1998	Disapproval of Daily Alcohol Drinking		
	26-16a. 8th Graders	26-16b. 10th Graders	26-16c. 12th Graders
	Percent		
Black or African American	80	80	82
White	77	74	66
Hispanic or Latino	72	75	77
Not Hispanic or Latino	DNC	DNC	DNC
Black or African American	DNC	DNC	DNC
White	DNC	DNC	DNC
<b>Gender</b>			
Female	73	68	58
Male	82	81	80
<b>Family income level</b>			
Poor	DNC	DNC	DNC
Near poor	DNC	DNC	DNC
Middle/high income	DNC	DNC	DNC

DNA = Data have not been analyzed. DNC = Data are not collected. DSU = Data are statistically unreliable.

#### Target and baseline:

Objective	Increase in Adolescents Who Disapprove of Trying Marijuana or Hashish Once or Twice	1998 Baseline	2010 Target
		Percent	
<b>26-16d.</b>	8th graders	69	72
<b>26-16e.</b>	10th graders	56	72
<b>26-16f.</b>	12th graders	52	72

**Target setting method:** Better than the best.

**Data source:** Monitoring the Future Study, NIH, NIDA.

Adolescents, 1998	Disapprove of Trying Marijuana or Hashish		
	26-16d. 8th Graders	26-16e. 10th Graders	26-16f. 12th Graders
	Percent		
<b>TOTAL</b>	69	56	52
<b>Race and ethnicity</b>			
American Indian or Alaska Native	DSU	DSU	DSU
Asian or Pacific Islander	DNC	DNC	DNC
Asian	DSU	DSU	DSU
Native Hawaiian and other Pacific Islander	DNC	DNC	DNC
Black or African American	71	61	59
White	69	53	48
Hispanic or Latino	64	59	61
Not Hispanic or Latino	DNC	DNC	DNC
Black or African American	DNC	DNC	DNC
White	DNC	DNC	DNC
<b>Gender</b>			
Female	71	57	55
Male	68	55	47
<b>Family income level</b>			
Poor	DNC	DNC	DNC
Near poor	DNC	DNC	DNC
Middle/high income	DNC	DNC	DNC

DNA = Data have not been analyzed. DNC = Data are not collected. DSU = Data are statistically unreliable.

Disapproval of substance abuse is inversely related to adolescents' reports of use. For example, multi-year tracking of the results of the Monitoring the Future Study indicates that marijuana use among youth declines as the percentage of youth expressing disapproval of the drug increases. Similarly, an increase in marijuana use among youth during the early 1990s coincided with an apparent decline in the percentage of parents and peers expressing strong disapproval.<sup>97</sup>



**26-17. Increase the proportion of adolescents who perceive great risk associated with substance abuse.**

**Target and baseline:**

Objective	Increase in Adolescents Aged 12 to 17 Years Perceiving Great Risk Associated With Substance Abuse	1997 Baseline	2010 Target
		Percent	
<b>26-17a.</b>	Consuming five or more alcoholic drinks at a single occasion once or twice a week	47	80
<b>26-17b.</b>	Smoking marijuana once per month	31	80
<b>26-17c.</b>	Using cocaine once per month	54	80

**Target setting method:** Better than the best (consistent with Office of National Drug Control Policy).

**Data source:** National Household Survey on Drug Abuse (NHSDA), SAMHSA.

Adolescents Aged 12 to 17 Years, 1997	Perceived Risk From		
	26-17a. Alcohol	26-17b. Marijuana	26-17c. Cocaine
	Percent		
<b>TOTAL</b>	47	31	54
<b>Race and ethnicity</b>			
American Indian or Alaska Native	DSU	DSU	DSU
Asian or Pacific Islander	DSU	DSU	DSU
Asian	DNC	DNC	DNC
Native Hawaiian and other Pacific Islander	DNC	DNC	DNC
Black or African American	DNA	DNA	DNA
White	DNA	DNA	DNA
Hispanic or Latino	49	35	53
Not Hispanic or Latino	DNA	DNA	DNA
Black or African American	54	35	65
White	44	29	53

Adolescents Aged 12 to 17 Years, 1997	Perceived Risk From		
	26-17a. Alcohol	26-17b. Marijuana	26-17c. Cocaine
	Percent		
Gender			
Female	51	32	54
Male	43	30	55
Family income level			
Poor	DNA	DNA	DNA
Near poor	DNA	DNA	DNA
Middle/high income	DNA	DNA	DNA

DNA = Data have not been analyzed. DNC = Data are not collected. DSU = Data are statistically unreliable.

The perception of risk in using illegal drugs is an important factor in decreasing drug use. As perception of harmfulness decreases, use tends to increase.<sup>18</sup> Therefore, youth need to be informed of the many risks, such as HIV infection, associated with use of alcohol, tobacco, and illegal drugs. (See Focus Area 27. Tobacco Use.) People who use or abuse drugs or alcohol sometimes reported being so high or intoxicated that they forgot to use a condom.<sup>18</sup> Therefore, informing youth about the connection between substance use and abuse and other problem behaviors, such as nonsafe sex, dating violence, and suicide, is important.

The percentage of adolescents aged 12 to 17 years who perceive great risk associated with substance abuse is on the decline.<sup>18</sup> The percentage perceiving great risk in using marijuana once a month decreased from 40 percent (1990) to 33 percent (1994-96). The percentage of youth perceiving great risk in using cocaine once a month decreased from 63 percent in 1994 to 54 percent in 1996. Perception of risk in having five or more drinks once or twice a week decreased from 58 percent in 1992 to 45 percent in 1996.<sup>18</sup>

The attitude of influential adults about alcohol and drugs is another critical predictor of attitudes in youth. Many adults who have regular contact with youth communicate ambivalent messages about alcohol and drug use.<sup>98</sup> In addition, more than 11 million children and adolescents under age 18 years have at least one parent who is addicted to alcohol or drugs.<sup>99</sup> As a result, the messages about harm and risk that they receive are sometimes impacted by family dynamics and denial. Risk and harm messages targeted to youth must therefore take this into account.

## Treatment for Substance Abuse

### **26-18. (Developmental) Reduce the treatment gap for illicit drugs in the general population.**

**Potential data source:** National Household Survey on Drug Abuse (NHSDA), SAMHSA.

The treatment gap is the difference between the number of persons who need treatment for the use of illicit drugs and the number of persons who are receiving treatment in a given year. Despite the widely acknowledged problem of drug abuse in the United States, accepted estimates of the number of persons who need treatment and the number who receive treatment are not available.<sup>100, 101</sup> It is estimated that 5.3 million persons are most in need of treatment.<sup>77</sup> National efforts are underway to estimate better the size of the gap, to develop strategies to expand capacity, and to eliminate barriers to access for those in need. These strategies involve seeking changes in financial barriers created by funding constraints and inadequate health and disability insurance coverage<sup>102</sup> and improvements in gender-specific and culturally appropriate treatment methods.<sup>103</sup>

Strategies address the specific and unique needs of select populations, including adolescents,<sup>104</sup> females, and elderly persons.<sup>105</sup>

### **26-19. (Developmental) Increase the proportion of inmates receiving substance abuse treatment in correctional institutions.**

**Potential data source:** Uniform Facilities Data Set Survey of Correctional Facilities, OAS, SAMHSA.

Much attention has been focused on the link between substance abuse and criminality, in part because of the large increase in the number of individuals incarcerated for drug-related offenses, such as possession, trafficking, and crimes of violence. In general, criminal offenders frequently have high occurrences of a substance abuse history, may or may not have previously received treatment, and without treatment have a greater likelihood of committing a criminal offense.<sup>106, 107, 108</sup>

### **26-20. Increase the number of admissions to substance abuse treatment for injection drug use.**

**Target:** 200,000 admissions.

**Baseline:** 167,960 admissions for injection drug use in 1997.

**Target setting method:** 19 percent improvement.

**Data source:** Treatment Episodes Data System, OAS, SAMHSA.

The 167,960 admissions to treatment for injection drug use indicates a large unmet need for treatment in this group, because estimates of injection drug users in the Nation are as high as 810,000.<sup>83</sup> Better data are needed on this group's need for treatment. Because of the consequences associated with HIV/AIDS, injection drug users are a high priority population group needing substance abuse treatment. HIV infection among females and infants in the United States can be traced primarily to contaminated drug "works" and to sexual relations with infected drug users. Pediatric AIDS is a particularly virulent problem among the children of persons involved in drug-related lifestyles. To address these problems, substance abuse treatment must be provided for injection drug users. Such treatment will be most effective against HIV if it includes information, counseling, and other assistance on how to prevent HIV and unintended pregnancy.

## **26-21. (Developmental) Reduce the treatment gap for alcohol problems.**

**Potential data source:** Office of Applied Studies, SAMHSA.

Although alcohol problems are diverse and vary along many dimensions, they can be described in part by their duration (acute, intermittent, chronic) and severity (mild, moderate, substantial, severe).<sup>110</sup> As with illicit drugs, availability of resources and access to clinically appropriate and effective treatment for alcohol problems are limited.<sup>11, 110</sup> The size of the gap is not well defined. Wide variability exists among jurisdictions in total treatment capacity and in how that capacity is distributed among settings and modalities.<sup>11, 110</sup>

Increasing the availability of treatment for alcohol problems is critical because of the pervasive impact these problems have on all aspects of society.<sup>111, 112</sup> Alcohol problems have an effect on such important components of human capital as level of school attainment, work experience, health status, and family structure. Strategies to be employed here are similar to those needed to improve access to appropriate primary, rehabilitative, and long-term care through addressing the many barriers that exist at multiple levels.<sup>113</sup> Key patient-level barriers include lack of knowledge or skepticism about the effectiveness of treatment and lack of money or insurance coverage to pay for treatment. System-level barriers include lack of trained personnel, stigma, lack of health and disability insurance coverage, and inadequate reimbursement for clinically necessary services through public funding mechanisms such as the Substance Abuse Prevention and Treatment Services Block Grant and Medicaid.<sup>114, 115</sup>

## State and Local Efforts

### **26-22. (Developmental) Increase the proportion of persons who are referred for followup care for alcohol problems, drug problems, or suicide attempts after diagnosis or treatment for one of these conditions in a hospital emergency department.**

**Potential data source:** National Hospital Ambulatory Medical Care Survey (NHAMCS), CDC, NCHS.

Alcohol problems, drug problems, and suicide attempts frequently cause ED visits, but these conditions may be overlooked during the visit or inadequately addressed when plans for followup are made. Some ED patients are treated for physical manifestations of alcohol problems, drug problems, or suicide attempts and released without appropriate evaluation, treatment, or referral for underlying behavioral risk factors that may cause a repeat ED visit.<sup>116</sup> These risk factors include hazardous patterns of alcohol consumption, use of illicit drugs, and predisposition to suicidal thoughts or actions. The effectiveness of ED interventions for these risk factors is determined by how well the affected patients are evaluated and treated in the ED and by the extent of communication and coordination with other settings and organizations in the community.<sup>117</sup> EDs are strategically well-positioned to ensure appropriate referrals for followup care, but underlying behavioral risk factors must be identified and appropriate followup services must be available.

### **26-23. (Developmental) Increase the number of communities using partnerships or coalition models to conduct comprehensive substance abuse prevention efforts.**

**Potential data source:** Community Partnerships Data, SAMHSA.

A comprehensive program of interventions at the community level is crucial to effective substance abuse prevention.<sup>118, 119</sup> Such programs enable communities to address issues related to their environments, not just their at-risk populations. Improving the environment means changing local ordinances and policies, coordinating local prevention services, increasing resident participation, communicating with the local media on how they portray local communities, and addressing numerous other conditions. Because of the diversity of communities, no single partnership model is expected to be the sole model used. However, desirable procedures and practices, such as how a community should get mobilized, are now being promoted.<sup>119</sup>

A recent 48-community study shows that community partnerships that showed statistically significant reductions in substance abuse shared a number of common characteristics. These include: a communitywide vision that reflects the consensus of diverse groups and citizens throughout the community; a strong core of

community partners; an inclusive, broad membership of organizations from all parts of the community; an ability to avoid or resolve conflict; decentralized groups that implement a large number of locally tailored prevention programs that effectively target local causes of drug use and empower residents to take action and make decisions; low staff turnover; and extensive prevention activities and support for improvements in local prevention policies.<sup>120</sup>

**26-24. Extend administrative license revocation laws, or programs of equal effectiveness, for persons who drive under the influence of intoxicants.**

**Target:** All States and the District of Columbia.

**Baseline:** 41 States and the District of Columbia had administrative license revocation laws for persons who drive under the influence of intoxicants in 1998.

**Target setting method:** Total coverage.

**Data source:** DOT, NHTSA.

Administrative license revocation (ALR) has proven to be a successful deterrent to driving while under the influence of intoxicants. ALR laws provide for administrative action separate from the judicial process that follows when a person is arrested for driving under the influence of alcohol or drugs. Colorado, Illinois, Maine, New Mexico, North Carolina, and Utah observed significant reductions in alcohol-related fatal crashes following the implementation of ALR laws. A 1991 study examined the costs and benefits of the procedure and found that reinstatement fees assessed to offenders more than covered the expenses of the program and that States also benefitted from the cost savings of fewer nighttime crashes. Another study found that ALR reduced fatal crashes an average of 9 percent during late-night hours when drivers are most likely to have been drinking alcohol. As a result of an ALR publicity campaign, the rate of fatal crashes during late-night hours was further reduced.<sup>121</sup>

**26-25. Extend legal requirements for maximum blood alcohol concentration levels of 0.08 percent for motor vehicle drivers aged 21 years and older.**

**Target:** All States and the District of Columbia.

**Baseline:** 16 States had legal requirements for maximum blood alcohol concentration levels of .08 percent for motor vehicle drivers aged 21 years and older in 1998.

**Target setting method:** Total coverage.

**Data source:** DOT, NHTSA.

More than 80 percent of the drivers involved in fatal crashes had blood alcohol concentration (BAC) levels exceeding 0.08 percent. An average man weighing

170 pounds must consume in 1 hour more than four drinks on an empty stomach to reach a 0.08 BAC level.<sup>122</sup> Most States that have enacted 0.08 BAC legislation experienced significant decreases in alcohol-related fatal crashes. For example, a 12 percent reduction in alcohol-related fatalities occurred in California in 1990, the year 0.08 legislation and an ALR law went into effect.<sup>122</sup>

As of August 1998, 50 States and the District of Columbia had established BAC cutoff levels of 0.00, 0.01, or 0.02 to define driving under the influence for individuals under age 21 years. A zero tolerance law makes driving with any measurable amount of alcohol in the blood illegal for persons under age 21 years. Because young drivers place such a high value on their driver's licenses, the threat of license revocation has proved to be an effective sanction for this age group.<sup>122</sup>

## Related Objectives From Other Focus Areas

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### **1. Access to Quality Health Services**

- 1-1. Persons with health insurance
- 1-2. Health insurance coverage for clinical preventive services
- 1-3. Counseling about health behaviors
- 1-4. Source of ongoing care
- 1-5. Usual primary care provider
- 1-6. Difficulties or delays in obtaining needed health care
- 1-7. Core competencies in health provider training
- 1-8. Racial and ethnic representation in the health professions
- 1-10. Delay or difficulty in getting emergency care
- 1-11. Rapid prehospital emergency care
- 1-12. Single toll-free number for poison control centers
- 1-13. Trauma care systems
- 1-14. Special needs of children

### **3. Cancer**

- 3-10. Provider counseling about preventive measures

### **6. Disability and Secondary Conditions**

- 6-2. Feelings and depression among children with disabilities

### **7. Educational and Community-Based Programs**

- 7-1. High school completion
- 7-2. School health education
- 7-3. Health-risk behavior information for college and university students
- 7-4. School nurse-to-student ratio
- 7-5. Worksite health promotion programs
- 7-6. Participation in employer-sponsored health promotion activities
- 7-7. Patient and family education
- 7-8. Satisfaction with patient education
- 7-9. Health care organization sponsorship of community health promotion activities
- 7-10. Community health promotion programs

- 7-11. Culturally appropriate community health promotion programs
- 7-12. Older adult participation in community health promotion activities

## **9. Family Planning**

- 9-8. Abstinence before age 15 years
- 9-9. Abstinence among adolescents aged 15 to 17 years
- 9-10. Pregnancy prevention and sexually transmitted disease protection
- 9-11. Pregnancy prevention education
- 9-12. Problems in becoming pregnant and maintaining a pregnancy

## **13. HIV**

- 13-3. AIDS among persons who inject drugs
- 13-4. AIDS among men who have sex with men and who inject drugs
- 13-8. HIV counseling and education for persons in substance abuse treatment
- 13-12. Screening for STDs and immunization for hepatitis B
- 13-13. Treatment according to guidelines

## **14. Immunization and Infectious Diseases**

- 14-28. Hepatitis B vaccination among high-risk groups

## **15. Injury and Violence Prevention**

- 15-10. Emergency department visits
- 15-13. Deaths from unintentional injuries
- 15-14. Nonfatal unintentional injuries
- 15-15. Deaths from motor vehicle crashes
- 15-16. Pedestrian deaths
- 15-17. Nonfatal motor vehicle injuries
- 15-18. Nonfatal pedestrian injuries
- 15-29. Drownings
- 15-32. Homicides
- 15-37. Physical assaults

## **16. Maternal, Infant, and Child Health**

- 16-17. Prenatal substance exposure
- 16-18. Fetal alcohol syndrome

## **17. Medical Product Safety**

- 17-3. Provider review of medications taken by patients

## **18. Mental Health and Mental Disorders**

- 18-6. Primary care screening and assessment
- 18-10. Treatment for both co-occurring disorders
- 18-13. State plans addressing cultural competence

## **23. Public Health Infrastructure**

- 23-2. Public access to information and surveillance data
- 23-3. Use of geocoding in health data systems
- 23-4. Data for all population groups
- 23-5. Data for Leading Health Indicators, Health Status Indicators, and Priority Data Needs at Tribal, State, and local levels
- 23-6. National tracking of Healthy People 2010 objectives
- 23-7. Timely release of data on objectives
- 23-8. Competencies for public health workers
- 23-9. Training in essential public health services



- 23-10. Continuing education and training by public health agencies
- 23-11. Performance standards for essential public health services
- 23-12. Health improvement plans
- 23-14. Access to epidemiology services
- 23-15. Model statutes related to essential public health services
- 23-16. Data on public health expenditures
- 23-17. Prevention research

## **25. Sexually Transmitted Diseases**

- 25-11. Responsible adolescent sexual behavior
- 25-12. Responsible sexual behavior messages on television
- 25-13. Hepatitis B vaccine services in STD clinics
- 25-14. Screening in youth detention facilities and jails

## **27. Tobacco Use**

- 27-1. Adult tobacco use
- 27-2. Adolescent tobacco use
- 27-3. Initiation of tobacco use
- 27-4. Age at first use of tobacco
- 27-5. Smoking cessation by adults
- 27-6. Smoking cessation during pregnancy
- 27-7. Smoking cessation by adolescents
- 27-8. Insurance coverage of cessation treatment
- 27-9. Exposure to tobacco smoke at home among children
- 27-10. Exposure to environmental tobacco smoke
- 27-11. Smoke-free and tobacco-free schools
- 27-12. Worksite smoking policies
- 27-13. Smoke-free indoor air laws
- 27-14. Enforcement of illegal tobacco sales to minors laws
- 27-15. Retail license suspension for sales to minors
- 27-16. Tobacco advertising and promotion targeting adolescents and young adults
- 27-17. Adolescent disapproval of smoking
- 27-18. Tobacco control programs
- 27-19. Preemptive tobacco control laws
- 27-20. Tobacco product regulation
- 27-21. Tobacco tax

## Terminology

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(A listing of all abbreviations and acronyms used in this publication appears in Appendix K.)

**Administrative license revocation (ALR):** Legal procedure that allows an arresting officer to confiscate immediately the driver's license of a driver who is found with a blood alcohol

concentration (BAC) at or above the legally set limit or who refuses to take a BAC test. The officer usually issues a temporary driving permit valid for a short time, often 15 to 20 days, then notifies the offender of his or her right to an administrative hearing to appeal the revocation. If there is no appeal or if revocation is

or if revocation is upheld, the offender loses his or her driver's license for a set period (90 days in most States for a first offense and longer for subsequent offenses).

**Alcohol abuse:** A maladaptive pattern of alcohol use that leads to clinically significant impairment or distress,

as manifested by one or more of the following occurring within a 12-month period: recurrent alcohol use resulting in a failure to fulfill major role obligations at work, school, or home; recurrent alcohol use in physically hazardous situations; recurrent alcohol-related legal problems; continued alcohol use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of alcohol. In the literature on economic costs, alcohol abuse means any cost-generating aspect of alcohol consumption. This definition differs from the clinical use of the term, which involves specific diagnostic outcomes.

**Alcohol dependence:** A maladaptive pattern of alcohol use that leads to clinically significant impairment or distress, as manifested by three or more of the following occurring at any time in the same 12-month period: tolerance; withdrawal; often taking alcohol in larger amounts or over a longer period than was intended; persistent desire or unsuccessful efforts to cut down or control alcohol use; spending a great deal of time in activities necessary to obtain alcohol or recover from its effects; giving up or reducing important social, occupational, or recreational activities because of alcohol use; continued alcohol use despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by alcohol.

**Alcohol-related crash:** A motor vehicle crash in which either a driver or a nonmotorist (usually a pedestrian) had a measurable or estimated BAC of 0.01 grams per deciliter (g/dL) or above.

**Binge drinking:** The National Household Survey on

Drug Abuse defines binge drinking as drinking five or more drinks on the same occasion on at least 1 day in the past 30 days. The Monitoring the Future Study defines binge drinking as drinking five or more drinks on the same occasion during the past 2 weeks.

**Blood alcohol concentration (BAC):** The amount of alcohol in the bloodstream measured as a percentage, by weight, of alcohol in the blood in grams per deciliter (g/dL). Legal intoxication has been defined by States to occur at ranges from as low as 0.05 g/dL to as high as 0.10 g/dL.

**Chronic drug use:** Use of any heroin or cocaine more than 10 days in the past month.

**Co-occurring disorders:** The simultaneous presence of two or more disorders, such as the coexistence of a mental health disorder and substance abuse problems.

**Current drinkers:** Persons who have consumed at least 12 drinks of any kind of alcohol in the past year.

**Drug dependence:** A pattern of drug use leading to clinically significant impairment or distress, as manifested by three or more of the following occurring at any time in the same 12-month period: tolerance; withdrawal; use in larger amounts or over a longer period of time than intended; persistent desire or unsuccessful efforts to cut down; spending a great deal of time in activities necessary to obtain drug(s); giving up or reducing important social, occupational, or recreational activities; continued use despite knowledge of having a persistent or recurrent physical or psychological problem.

**Fatal crash:** A police-reported crash involving a motor vehicle in transport on

a traffic way in which at least one person dies within 30 days of the crash.

**Hepatitis B and C:** Viral infections of the liver spread through contact with infected blood products, injection use of drugs, and needle-sharing.

**Indicated preventive interventions:** Interventions targeted to reach high-risk individuals who are identified as having minimal but detectable signs or symptoms foreshadowing substance abuse or biological or familial markers indicating predisposition for substance abuse, even though they do not meet DSM-III-R diagnostic levels at the current time.

**Inhalants:** Fumes or gases from common household substances, such as glues, aerosols, butane, and solvents, that are inhaled to produce a high.

**Injection drug use:** The use of a needle and syringe to inject illicit drugs (for example, heroin, cocaine, steroids) into the vein, muscle, skin, or below the skin. Injection drug use places the user at great risk for transmitting or contracting a number of blood-borne infectious diseases, including HIV, hepatitis B, and hepatitis C.

**Selective preventive interventions:** Interventions targeted to individuals or a subgroup of the population whose risk of developing substance abuse is significantly higher than average. The risk may be imminent or it may be a lifetime risk. The basis may be biological, psychological, or environmental.

**Substance abuse:** The problematic consumption or illicit use of alcoholic beverages, tobacco products, and drugs, including misuse of prescription drugs.

**Universal preventive interventions:** Interventions targeted to the public or a whole population group that has not been identified on the basis of individual risk. The intervention is desirable

for everyone in that group. Universal interventions have advantages in terms of cost and overall effectiveness for large populations.

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